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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,476	02/20/2004	Tetsuo Ikegame	01803D/LH	7472

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EXAMINER	
DINH, JACK	

ART UNIT	PAPER NUMBER
2873	

MAIL DATE	DELIVERY MODE
05/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/783,476	IKEGAME, TETSUO	
	Examiner	Art Unit	
	Jack Dinh	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) *11-29* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/021,652.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *DETAILED ACTION*.

DETAILED ACTION

Election/Restrictions

1. The previous restriction requirement mailed 01/29/07 was based on the older amendment filed on 09/26/06. However, the Applicant filed a supplemental amendment dated 10/13/06, which was not considered previously. The restriction requirement mailed 01/29/07 was determined to be an error without considering the supplemental amendment and is therefore withdrawn. The rejections below will be based on the supplemental amendment filed 10/13/06, wherein claims 1-29 are pending in the application and claims 11-29 are withdrawn from consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being unpatentable by Ikegame et al. (US Patent 6,373,811).

Regarding claim 1, Ikegame (figure 10B) is interpreted as disclosing an optical element drive mechanism comprising a movable portion **112e** including at least an optical element having a reflecting surface (not shown), a support member **112d** for supporting the movable portion rotatably with respect to a fixing member, and a drive mechanism including at least a coil **114g** and a magnet **112f** for driving the movable portion, wherein a pole surface of the magnet is substantially parallel to the reflecting surface of the movable portion (see figure).

Regarding claim 2, Ikegame (figure 10B) is interpreted as further disclosing that the coil includes an effective portion which generates rotation torque, and a magnetic field which is substantially in parallel with the reflecting surface of the movable portion functions on the effective portion of the coil.

Regarding claim 3, Ikegame (figure 10B) is interpreted as further disclosing a plurality of magnetic poles are provided on the pole surface of the magnet (see figure).

Regarding claim 4, Ikegame (figure 10B) is interpreted as further disclosing that the plurality of magnetic poles provided on the pole surface of the magnet are opposite to the movable portion (see figure).

Regarding claim 5, Ikegame (figure 10B) is interpreted as further disclosing that the coil includes an effective portion which generates rotation torque, and the effective portion of the coil is positioned at a boundary portion between respective magnetic poles of the magnets.

Regarding claim 6, Ikegame (figure 10B) is interpreted as further disclosing that the coil **114g** is attached to the movable portion **112e**.

Regarding claim 7, Ikegame (figure 10B) is interpreted as further disclosing that the movable portion **112e** comprises the reflecting surface (not shown) on a first side and the coil **114g** on a second side that is opposite to the first side.

Regarding claims 8-10, Ikegame is interpreted as disclosing all the claimed limitations except that the movable portion comprising an array of plurality of movable portions. However, positioning one movable portion next to another to create an array of plurality of movable portions to achieve multiple effect would have been an obvious modification to one of ordinary skill in the art. In addition, creating an integral support member for the plurality of movable portions and providing a magnet generated enough magnetic flux to drive the plurality of movable portions would have been obvious and within the knowledge of one skilled in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an array of plurality of the movable portions for the purpose of accommodating larger switching system.

Response to Arguments

3. As described above, the restriction requirement mailed 01/29/07 was determined to be an error without considering the supplemental amendment filed 10/13/06 and is therefore

withdrawn. Therefore, the Applicant's response to the restriction filed on 02/15/07 will not necessarily be considered as part of this argument.

For clarity purpose, the arguments below will be based on the supplemental amendment to the claims filed 10/13/06, wherein claims 1-29 are pending in the application and claims 11-29 are withdrawn from consideration, and the combined remarks filed on 09/26/06 and 10/13/06.

4. Applicant's arguments filed 09/26/06 have been fully considered but they are not persuasive.

The Prior Art Rejection

Regarding claim 1, the Applicant argues that Ikegame et al. shows that the pole surface of the magnet is not parallel to the reflecting surface of the mirror. This is not found persuasive for the following reasons. It is reminded that the term "pole surface" is not anywhere described in the original specification. The Applicant argues this by providing reference figures B and C and his own definition of the "pole surface", described on page 13-14 of the response, which was never described in the original specification. Even so, the Applicant can only show that the one of the pole surfaces of the magnet is not parallel to the reflecting surface of the movable portion, wherein other pole surfaces of the magnet can be parallel to the reflecting surface of the movable portion as noted by the Examiner. Therefore, the prior art still reads on the broad language of the claim.

Regarding claim 7, as noted above, the prior art still reads on the broad language of the amended claim 7 since the movable portion comprises the reflecting surface on a first side (not first surface) and the coil on a second side (not second surface) that is opposite to the first side.

Regarding claims 8-10, the Applicant argues that the "movable portions" including components such as the coils and magnets. However, these were not the language used in the claims. In fact, claim 1 defines the "movable portion including at least an optical element having a reflecting surface". Therefore, the prior art still reads on the broad language of the claim.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Dinh whose telephone number is 571-272-2327. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack, can be reached at 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jack Dinh
05/10/07

RICKY MACK
SUPERVISORY PATENT EXAMINER